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Professor C. H. Waddington, C.B.E., Sc.D., D.Sc., F.R.S.

INSTITUTE OF ANIMAL GENETICS · WEST MAINS ROAD · EDINBURGH 9

University Department of Animal Genetics, A.R.C. Unit of Animal Genetics & M.R.C. Induced Mutagenesis Group

Telephone: NEWington 1081

Dear

Lidwarg

I am sending you a copy of an article I recently wrote about the proposed International Biological Programme, which I am also sending to a number of other senior American biologists who I know to be interested in the application of biology to human welfare. I think that, if this programme is to be worthwhile, it will need the guidance of people who both have some vision of what biology can do for mankind and who can also keep their feet on the ground and prevent the programme going off into mere accumulation of details.

I found myself somewhat thrown into the middle of this situation when, to my surprise, I was elected President of the International Union of Biological Sciences. I found that they had already in existence a project for an I.B.P., but it seemed to be extremely vague in its objectives, each member of the Planning Committee suggesting that it should be about his own special field. I tried to look at the situation from an outside point of view. It seemed clear that there was not much case for organised international programmes in the growing points of analytical biology, such as molecular genetics or central nervous system work. The major international biological problem seemed to be "the population explosion"; and in this the control of human reproduction is already the concern of a good number of international bodies. I came to the conclusion that the major contribution which general biologists can make to world progress at the present time is to study the conditions of biological productivity, on which all food production is based, and to force this problem on public attention, trying to make governments and peoples realise that the surroundings in which man lives are working biological system and not merely something to be exploited as fast as possible.

To ask for a world-wide survey of biological productivity is, in fact, to face ecologists with a challenge which it is not quite clear that they can meet; those dealing with marine and freshwater habitats seem to have a fairly well developed science of production, but production by terrestrial communities is much more complex and less well understood. I think it is possible that it will turn out that biologists cannot yet give an account of what living systems in all regions of the world's surface do with the incident energy which falls on them. But even if this pessimistic opinion is correct, at least it will surely be of great value to focus attention on the problem.

Yours sincerely,

C.H. Waddington.